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SOIL CONSERVATION

OFFICIAL ORGAN OF THE SOIL CONSERVATION SERVICE

SOIL CONSERVATION •

CHARLES F. BRANNAN

SECRETARY OF AGRICULTURE

ISSUED BY SOIL CONSERVATION SERVICE, U. S. DEPARTMENT OF AGRICULTURE

WASHINGTON, D. C.

HUGH H. BENNETT

CHIEF, SOIL CONSERVATION SERVICE

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WELLINGTON BRINK

Editor

Art Work by

W. HOWARD MARTIN

SOIL CONSERVATION is published by direction of the Secretary of Agriculture as administrative information required for proper transaction of the public business, with approval of the Director of the Budget. SOIL CONSERVATION supplies information for workers of the Department of Agriculture and others engaged in soil conservation.

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MAGAZINE WITH MISSION.—Directors of the Allegany Soil Conservation District have put Allegany (N. Y.) County bankers on the receiving rather than the lending end of a transaction. They have just presented each bank with a year's subscription to SOIL CONSERVATION Magazine. Because Allegany bankers help many cooperators finance establishment of soil and water conservation practices on their land, Chairman Hugh Chamberlain says, "We thought it would help them keep current in soil conservation district and Soil Conservation Service developments." The district also pays a subscription for every school in the county.

NEW SUBSCRIPTION RATES

By order of the Superintendent of Documents, the subscription price of this magazine will be changed with the July 1951 issue to \$1.25 a year domestic, \$1.75 foreign, 15 cents single copies. This increase will be the first in 16 years of publication.



FRONT COVER.—Taken a year ago by Dick Burwell, this photograph is of contour strips laid out in a unit system. The upper unit is in corn and meadow strips, the lower unit in wheat and meadow strips. The owner of this farm is Albert D. Yoder, Holmes County, Ohio.

FULL STATURE REACHED BY NATIONAL ASSOCIATION OF SOIL CONSERVATION DISTRICTS

By WELLINGTON BRINK

A NEW idea is rolling across rural America, gathering force and momentum as it rolls. It is penetrating every valley, hill, and prairie. It is reaching the cattle country, and the cotton and corn belts. It is pressing on the orchard lands, and the places where sugarcane and rice and truck crops grow. You can hear and feel its thunder a thousand different ways. Everywhere—as a result of this new idea—the earth today is getting greener, fresher, more resplendent. And everywhere men's minds and hearts are quickening and strengthening with a zeal which comes from meeting and embracing democracy at one's own pasture gate.

In Oklahoma City last February 20-23, I saw this idea—the concept of soil conservation districts—put on display by more than two thousand men and women from farms in every State of the Union during the fifth annual convention of the National Association of Soil Conservation Districts. In many ways this was an important historical occasion. Most of all, I think, this convention marked the attainment of ripe maturity by the soil conservation districts movement—a rural development without parallel in the annals of civilized man. Here was a meeting of farm leaders, men and women accustomed to exploring broad horizons, statesmen of agriculture in every way competent to represent their home communities. The Association carried to its work a consciousness of national responsibility and a prestige heightened as a result of having been listened to in the recent streamlining of soil conservation work in the United States Department of Agriculture.

Waters S. Davis, Jr., national president, in his opening address summarized the year's progress and spearheaded a group of speakers that included Secretary of Agriculture Charles F. Brannan; Hugh Hammond Bennett, Chief of the Soil Con-



Waters S. Davis, Jr.

servation Service; Dr. Jonathan Forman, vice president of Friends of the Land; and Donald McKnight, winner of the Dow Chemical Co. award for his speech, "What My Soil Conservation District Has Done for Me." (Parts of each of these addresses will be found elsewhere in this issue.)

Secretary Brannan and Chief Bennett, fresh from winding up conferences which led to the order coordinating Federal agency conservation activities on the local level, devoted their addresses largely to clarifying issues and dispelling doubts and challenging all comers to make the set-up work successfully. Each expressed heartfelt gratitude for the patience and helpfulness and unfailing

cooperation of Waters Davis, George Heidrich, and other district leaders. And both received enthusiastic ovations from crowded banquet halls.

For the first time since expansion of organization last year, the Association put on parade not only its national officers but also its seven hard-working area vice presidents: George R. Heidrich, W. F. Hall, Herbert B. Eagon, R. M. Boswell, Walter A. Groom, W. E. Silverwood, and Everett Barr.

The Association, centering its attention on its vibrant "program for greater service," shied away from a proposal for compulsory conservation.

Hosts to the delegates were the Oklahoma Asso-

ciation of Soil Conservation Districts, headed by President A. P. Atkins (see March SOIL CONSERVATION Magazine), the Oklahoma City Chamber of Commerce, and the Oklahoma Water Development Association.

Well planned, smooth running, expertly publicized, this convention not only was profitable and memorable to its participants but also served to unify the soil conservation districts as never before. It signalized the complete emergence on the national scene of a young, vigorous, and unique farm organization which from now on is sure to be heard from whenever the welfare of the American land is at stake.

WORKING TOGETHER FOR CONSERVATION

By the HONORABLE CHARLES F. BRANNAN
Secretary of Agriculture

(This address was delivered at the 1951 convention of the National Association of Soil Conservation Districts.)

I CONSIDER it an honor that you have invited me to have a part in this occasion.

At this moment, I feel about as I do when I am introduced to some handsome young fellow 6 feet tall, and his beaming mother tells me he is the baby of the family. Among farm organizations yours is something of a baby. In July of this year you will become officially 5 years old. Even if you date your age to the Washington meeting in January of 1946 when your founders instructed Mr. E. C. McArthur to explore the possibility of bringing the State organizations together in a national association you are only a month over 5 years old.

Seldom do 5 years bring so much growth, in numbers, in stability, and in clarity of purpose.

In these days the whole civilized world is wondering what course the future will take. If the things we hold dear are sustained, and if human freedom is to prevail—as we are determined it will—one of the important factors will be that the soil conservation movement came into being in the United States when it did and as it did.



The Honorable Charles F. Brannan.

If ever we needed to assure big crops for the future, that time is now. We have heard more about surpluses than about shortages in the last few years—at least I have. But very few of the world's people have the comfort of a surplus these days; and I am sure that in the long swing of history our ability to produce an agricultural abundance and keep on producing it will give us an advantage of tremendous importance.

For one thing, we are eating more food these days. Even with what appears to be a shortage of certain meats, the average person in the Nation is eating much more of those meats today than he was 10 years ago. The apparent shortages here and there are really the result of our better standard of living. There are individual cases in which hardship exists as a result of higher prices, but the prosperity of our agriculture reflects by and large a better standard of living throughout our economy.

During any war or period of preparation for defense, there appear shortages of some consumer goods which depend upon scarce metals or which require certain kinds of manufacturing plants that may have been converted to war work. And this means that, with fewer of those durable goods to buy, people spend relatively more money for food. I for one expect the American family of average means to bid for a better diet during the years ahead.

It is only prudent for us to maintain or build up our stocks of farm products so that they are available when we need them—our above-ground stocks. Whatever emergency situations may confront us, we shall be better prepared if we maintain our visible reserves at a high level, and keep up a large carry-over of storable basic commodities.

Then too, this country, with a spirit stemming from its great humanitarian tradition, has undertaken to send food to drought areas of the world, and to other areas where famine is threatening. This ability to send supplies overseas when they are needed takes on added importance today. By doing so we may be able to help keep important parts of the world from becoming attractive hunting grounds for the forces of aggression.

Important as they are, our above-ground supplies—our full warehouses—are only a part of what we need to store up. We must maintain in our soil the potential for abundant production which can continue for years if the need continues.

Moreover, our own population is growing. In 25 years it will not fall far below the 200 million mark, at present rates of increase.

This whole task, meeting our emergency responsibilities and maintaining our productive potential for the future, depends upon the same land, approximately 1 3/4 billion acres, that we now have.

If we are to be able to feed 175 to 200 million people a short 25 years from now, and be ready to take on part of the job of feeding more millions outside the United States, we must keep our farms productive; more than that, we must increase their productivity.

Our plant breeders can turn out better plants; our scientists can devise new protective chemicals. We can find better ways to feed livestock and poultry. Our machinery manufacturers can make faster and more efficient machinery to multiply the work of a man's hands. Each of these is an essential part of the great task, and each has contributed heavily to the abundance we now enjoy. But that is not the whole answer to our production problem. Far from it. The entire Nation and a large part of the rest of the world depend upon one thing which is in the farmers' care, and that is our land. In spite of publicity given to water-culture and other laboratory-scale practices which grow plants without earth, as far ahead as I can see, we shall have to count upon the land—and for us in the United States, essentially the same land we are now farming—to feed us and clothe us, to grow our wood, and provide farm raw materials for industry.

It is not enough to look back to what we think our soil may once have been and try to reestablish some past balance. When early settlers first came into most of the land that is now the United States, it was producing almost no surplus. Year in and year out the grass grew or the forests stood, harvested only by occasional fires, by the grazing of wild animals, or to a small extent by the Indians who lived here in relatively small numbers. There existed an almost unproductive balance.

In the modern world we cannot survive on that basis. We must, in order to survive, produce a surplus which can be harvested and hauled away and used great distances from the soil that produced it. The amount of that surplus must increase as the years go by.

We must recognize that we have taken the geology of large areas of the earth's surface into our own hands. Man is becoming and in many places has already become a more important geologic factor than the glaciers were.

And man's effect on the land will continue as long as there is an inhabited earth. If man is to survive and enjoy increasing abundance we must find and establish a new kind of balance, a dynamic balance of use and care. As it is today, we have learned much that is essential about how to use our soil wisely, but we have only begun to apply that knowledge. We know for sure that unwise land use can waste its productivity and bring on either a decline in production or the necessity for increasing efforts to maintain production.

We are learning how to care for our soil, and use it, so that we believe we will be able to make it better and better as the years go by—this is a fact of untold importance. It marks a new epoch. As I see it, we must apply our knowledge promptly and fully to underwrite a stable, strong civilization with a future of freedom. That is why I said to you, as I did a little bit ago, that the development of the soil conservation movement in this country when and as it developed, may have been of historic moment.

In the beginning of the Forest Service, the oldest of our conservation agencies, the United States first became aware of conservation as a national concern. The Forest Service has established a fine record which has in a sense been the example for younger conservation agencies.

Soil conservation as an organized movement is not very old; it is hard to say just when or how the idea began, but it is not hard to say who began it. It is an honor for me to be associated with Dr. Hugh Hammond Bennett, who will celebrate his seventieth birthday in just about 2 months. His boundless energy, his great devotion to this work, were without question the personal forces which gave the movement its great impetus in the United States.

In recent years, there have been several more or less concurrent legislative developments of our soil conservation activities. I have already mentioned the Forest Service. The major agencies concerned directly with soil conservation have been the Agricultural Conservation Program of the Production and Marketing Administration and the Soil Conservation Service.

Let us look at the Agricultural Conservation Program of the Production and Marketing Administration. It has always been a very elastic kind of program, as any such great undertaking must be. It was originally conceived in the 1930's. You will remember that, due to the Great Depression, the Nation was then not eating very well and not using as much farm production as it needed. Land was taken out of cultivation to bring supply back into some kind of balance with what the markets could use. The Agricultural Conservation Program had its inception as a way of keeping the land from eroding and being lost, as it was taken out of active use, and to do something better with it than let it grow up to weeds. The conservation payments helped cover the cost of certain recommended conservation practices the farmer was asked to adopt. It got results, and it helped a lot of farmers to avoid foreclosure of their mortgages. We may be grateful now for the strength of the agriculture which that movement helped to preserve and build.

Through the years this developing program has been studied at the national, State, and county levels, and adapted to the local areas by the PMA county committees. Perhaps some of you are members of, or have been members of, one of these committees. Certainly the committeemen are among your friends and neighbors.

By and large there is no more highly respected group of farm leaders across the country than the PMA county committeemen.

We hope that program can continue. To speak with complete frankness, the incentive of money paid has in many cases been just the incentive it took to get adopted the conservation practices the national interest required. There is no need to apologize for this kind of subsidy or the need for it. We offer certain heavy industries an assured market, and we offer them advantages such as rapid tax amortization, to get them to expand and produce as the Nation requires. We have long aided industry with tariffs. We subsidize postal service and airlines and shipping. We have not hesitated to do what was necessary in the public interest, and soil conservation is vital in the public interest.

Now let us look at the Soil Conservation Service. The way to look at this agency is from the standpoint of the districts because the most important work, and by far the greatest volume of work of

the Soil Conservation Service, depends upon the cooperation of the districts.

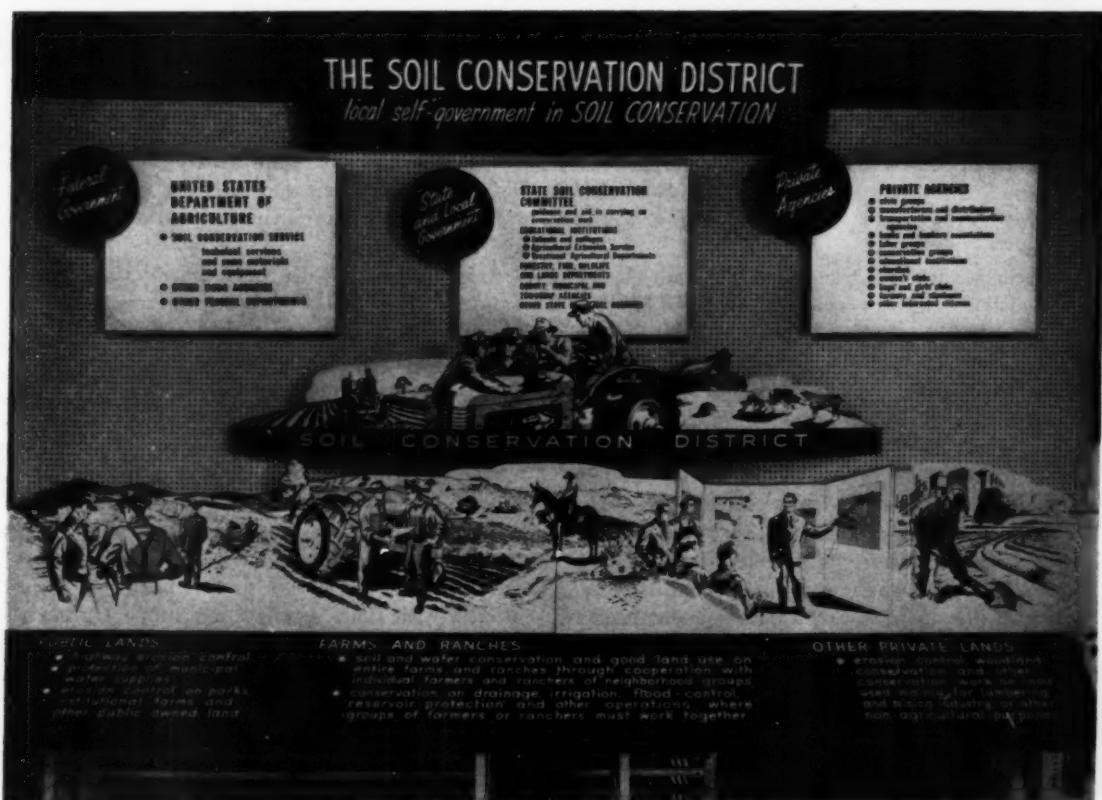
There is, I am afraid, confusion in the minds of some people about these soil conservation districts. Some people still think of a soil conservation district as some part of the Federal Government by which the Soil Conservation Service tells farmers how to farm. You, in this Association, know the facts better than that. You know that in every State of the Union and in the Territories, the legislatures have adopted their own laws authorizing the formation of soil conservation districts. Under the provisions of these laws, local people have organized soil conservation districts, have voted them into existence. There are now 2,330 of them, and they embrace about three-fourths of the Nation's agricultural land. These districts are planned, managed, and administered by the local people. You supervisors . . . some States call you commis-

sioners, or directors . . . are the elected representatives of those people.

The laws provide ways by which any soil conservation district can dissolve, and cease to exist, if the people it serves do not like what it means to them.

You might be interested to know that there have been, to my knowledge, only two cases in which soil conservation districts have disbanded. One of them became the site of a giant atomic energy plant; and in the case of the other, those farming most of the area promptly voted themselves into an adjacent district.

I have been emphasizing that word "district." You are a kind of local free enterprise. Nobody can force membership, cooperation, or participation in a soil conservation district upon you. The Department of Agriculture does not set up districts and run them. Neither does the Department of Agriculture make districts successful. Only the



This exhibit attracted much attention at the convention. It was prepared under the supervision of Herrin F. Culver, head of visual information, Soil Conservation Service.

people who live there and farm there can do that.

These two great soil conservation programs—the Agricultural Conservation Program of the Production and Marketing Administration, and the cooperative work of the soil conservation districts and the Soil Conservation Service—in the natural course of their work have brought their lines of activity closer and closer together. Where formerly the similarity of their work was more or less coincidental, their primary objectives are now essentially the same.

Thus, it has come as no surprise to many of you, I am sure, to hear the recent announcement calling for these two great programs to work together in the closest of cooperation and with a single line of purpose.

The Soil Conservation Service technicians in your districts are paid by the Federal Government and their activities are administered from the Department of Agriculture. Also, the Agricultural Conservation Program of PMA exists under Federal law, and the money is paid from the Federal Treasury. These two can be brought together by the Department of Agriculture. We have now required that they work together closely.

Henceforth, also, the Agricultural Conservation Program will be planned at the State and national levels with the direct assistance of the Soil Conservation Service and the United States Forest Service.

Soil conservation districts are a different matter. Your districts do not exist by Federal law but under State and Territorial law. The Federal Government can offer cooperation with you, but it cannot compel it.

The directives I have recently issued require that not only SCS technicians but also the PMA county committees extend every cooperation to your districts, and I hope you will take advantage of it to the fullest extent. Upon your doing so depends the success of our present efforts to bring these two great conservation activities together. As I said, the Federal Government cannot make a district successful but by these new orders the Department hopes to promote greater effectiveness both in the Agricultural Conservation Program and in the work of your districts.

In connection with the issuance of these administrative orders, we have put down in words something that most of you have been working on for years. Informally it has been one of the great

objectives of American agriculture for several years. Now it is the stated official policy of the United States Department of Agriculture. Let me read it to you, because I think the official wording is about right.

"The basic physical objective of soil conservation activities by the Department agencies shall be the use of each acre of agricultural land within its capabilities and the treatment of each acre of agricultural land in accordance with its needs for protection and improvement."

That is a tremendous assignment. If there were no threat to world peace, if we could direct our entire energies toward making that kind of farming part of the American tradition, it would take decades. Yet the world situation today and the imperative requirement that we be able to keep on producing abundantly for a long time to come make it even more urgent that we get about this work.

Our conservation work up to now is a vital beginning. It shows us not only how to do the job but it heartens us in our belief that we can accomplish it.

I know that there is more to farming than improving the land. You also have to make a living.

You have the daily, the weekly, and the yearly routine of things that somebody has to do and most of the time that means you have to do them yourself.

Agriculture is headed into difficult times in this country. The forces of world aggression are responsible, but there is no way out. So, we will have to head into the work that lies before us and take things as they come.

The Nation needs agriculture strong, and we need the things farms can produce. The Department of Agriculture will do everything it can do to keep our farms strong and productive.

The abundance we need to have always carries the risk of price breaks. With price support statutes on the books we can protect against that risk. Maybe, with times as they are, support programs will be called upon only in a minor way. But having the programs available will do a lot to break production bottlenecks on the farm.

With those programs we can help direct farm production into the lines where the national interest most needs production.

The Department will also continue to do the many things it has been engaged in to help farmers

become increasingly efficient. In addition, the present emergency necessitates new lines of work, including efforts to keep supplies and equipment going to our farms as they are needed.

But important as these things are that the Government can do for agriculture, only farmers can farm. You, as farmers, are the people the Nation depends upon, and to a certain extent the whole free world depends upon. There are a lot of things you have to do for yourselves.

That is the way we Americans like it. We cherish our independence. Most farm people would rather not have done for them anything they can do for themselves. That is partly why the soil conservation districts have been so widely accepted.

That is why, also, our farm population is one of the world's great bulwarks of individual freedom. The world has its eyes on our family farmers. They are not collectivized, they are not oppressed peasants working for a handful of landlords. They are free citizens who operate their farms as they see fit. Their situation is the dream-come-true of millions of dispossessed people the world around. The United States is proud to have other countries learn about our family farmers.

In Asia today there are four people on the land for every one person who is at work in industry, or at war, or in some other pursuit. In the United States for every person on the farm there are more than five in the city. In the United States one person *working* on the farm can produce the necessary farm products for more than 14 persons not farming. While most of the world's people must stay on the land to live, our tremendously productive agriculture becomes a source of tremendous strength. You cannot measure the manpower of a nation today by simply counting men.

In the United States, as I have said, public interest requires that agriculture be kept strong and become more and more productive. It requires that the Nation through the Federal Government should in many ways help America's agriculture. Yet by their own productivity our farmers have become a minority. Through the use of modern methods they have made it possible for the majority of our people to work at other businesses and skills than farming, with the result that many of our people no longer understand the farmer's situation.

The city man who depends upon the farmer for

food and clothing should know a great deal about that farmer. He should think of that farmer when he makes his decisions as a citizen. He must have the living facts.

To that end, you have a thoroughly sound and workable approach in the "Suggested Program for Greater Service." I have studied it and I hope you will study it if you have not already done so.

You have actually got two jobs to do, if you want to look at it in that way. One we have talked about this evening; it is the job of assuring the future productivity of our land. It is a tremendous job, it is an essential job. Nothing else can take its place.

But the other is the job that is in our newspapers every day. The thing the United States is mobilizing for, the thing the United Nations are fighting for in Korea, the thing the United States means most of all, it is the right of people to govern themselves.

We in the United States not only think people should have that right, *but we think they can do the job*. We believe, we Americans, that people care enough about the importance of self-government that they will get together and work at it.

You in your soil conservation districts are in the front rank in this matter of self-government. The diligence, the leadership, the ability with which you conduct the affairs of your local districts is a field demonstration the world is watching and should be watching.

With the history of the world in the balance, we dare not weaken at any point. Our boys in Korea can hold the line there. Our representatives in the United Nations can make our influence felt in the field of world organization and cooperation. But only the people—the people who most of the time don't think much about their importance to the world—can show that we believe in and will live the life of disciplined self-government.

The success of the soil conservation districts in the United States is as important in the control of the world's spiritual erosion as it is in the control of the Nation's land use. I urge that you never underestimate the scope of that task.

"Soil and Water Conservation in the United States" has been issued in an English-French edition by the Soil Conservation Service. It includes halftones and two-color maps.



Co-workers in Washington smile their pleasure at news that Hugh Bennett will serve another year. Among the two hundred or more who dropped by to congratulate the Chief were—left to right, standing—Frank J. Hopkins, assistant chief of operations; Thomas B. Chambers, chief of engineering division; Grover F. Brown, chief of agronomy division; Frederic G. Renner, chief of range division; Homer M. Wells, chief of water conservation division; Edward H. Graham, chief of biology division; and Robert M. Ross, chief of nursery division.

THE CHIEF WILL STAY ANOTHER YEAR!

THE FIRST and only Chief the Soil Conservation Service has ever had will be with us for another year.

The good news came early in April, just about 2 weeks before Hugh Hammond Bennett celebrated his seventieth birthday. Under the law, civil servants are normally required to retire from active Government service when they reach the age of 70. But the long record of outstanding service by Dr. Bennett was recognized by Secretary Brannan and President Truman. By Executive Order 10229, they retained the Chief in his post for another year—until April 30, 1952—so that he would be able to

direct the Service through the crucial months of organizing soil conservation work for its maximum contribution to national mobilization.

Bennett was 70 on April 15. From the first of the year, newspapers, magazines, and farm leaders all over the United States had been urging that his vigorous leadership be kept at work, and not lost during these days of adjustment in conservation work and national stress.

In announcing the extension of Dr. Bennett's tenure in office, Secretary Charles F. Brannan said: "Particularly today, when agricultural production is so important in the mobilization program, Dr. Bennett's long experience is invaluable. His continued services will contribute greatly to the further advancement of soil and water conservation, which is so important in the mobilization of our agricultural resources."

Bennett's unique command of the national conservation scene was given fitting recognition at the recent annual convention of the National Association of Soil Conservation Districts. On this occasion he delivered the final major address and re-

Honoring
Rug~~h~~ Hammond Bennett

He who sign this scroll hail with affection and pride American agriculture's senior statesman, prophet and benefactor — Hugh Hammond Bennett

We honor him for what he is, and for what he has done to make this country strong for defense, a good place to live, a land of prosperity and beauty and permanent productivity.

We know Hugh Hammond Bennett as a fellow farmer; a faithful scientist, a valiant and unique National and world leader in soil conservation. We esteem him as a wise teacher; an effective speaker; a traveler, explorer, ambassador of correct land practices; and as the planner, organizer, developer and director

of the first National soil conservation program in the history of civilization.

We admire the genius that inspired Hugh Hammond Bennett to originate the concept of treating each acre according to its needs and using it according to its capabilities.

We are grateful to Hugh Hammonds Bennett for his insistence not only on sound science and correct techniques but also on truly grass-roots democracy. Because of his firm stand on these principles the American land today is a better land physically, with more woodland, more wildlife, higher crop yields, a more stable soils, a multitude of farm ponds and clear streams. It is also a better land socially, economically and spiritually, with rural prosperity adding wealth to town and city.

ceived an ovation from the largest gathering in the history of the organization. In introducing the speakers, President Waters S. Davis, Jr., read a scroll of tribute—a hand-wrought volume of fine craftsmanship, signed by all officers on behalf of the Association—and presented it to Bennett as a token of respect and affection. The Hugh Bennett record—one of the great epics of individual American achievement—is summarized in this neatly turned statement. This document explains why it was so imperative to retain the Chief of the Soil Conservation Service beyond his normal retirement age. It is reproduced on this page.

with improved churches and schools, with finer bonds of fellowship among farm families as a result of working together in soil conservation districts and neighborhood groups.

First in the hearts of all who love the land, Hugh Hammond Bennett's conservation leadership has swept the nation and to a large extent the world. We bring to him today our pledge of continued devotion to the issues and ideals for which he has waged his long and heroic struggle to save the soils on which to build a bright Tomorrow.

 In testimony whereof we have set our names hereunto in
Convention assembled at Oklahoma City this twenty-second
day of December, in the year of our Lord, 2012.

**The National Association of Soil Conservation Districts
Executive Committee and Directors**

SOIL CONSERVATION DISTRICTS AND THE REST OF US

By JONATHAN FORMAN

Jonathan Forman's convention address discussed the nutritional aspects of agricultural production. A distinguished practicing physician of Columbus, Ohio, editor of the Ohio State Medical Journal, member of the medical faculty of Ohio State University, Dr. Forman is also a vice president of Friends of the Land. In the latter capacity, he is in high demand as a speaker and radio commentator. Departing somewhat from his major theme, Dr. Forman in the excerpt which follows tells his listeners about the publications available to members of this great layman's organization.

FRIENDS of the Land publish two quarterlies, *The Land* and *The Land News*. *The Land* is one of America's most beautiful and inspiring magazines, expertly edited by Russell Lord, whom I hold as the best of the agricultural writers. *The Land* is filled with inspirational stories and poems, reports from distant lands, historical notes and essays on the essential features of conservation, as well as book reviews of an intelligent, mature type by the best writers in America. Most of the material is composed as works of love by some of America's best writers, and could not be obtained ordinarily at anywhere near the price that a magazine could afford to pay.

The Land News is a news magazine of the style of *Newsweek* and *Time*, which brings a report of what is going on in the field with special reference to soil and water conservation, restoration of soil fertility, and their relation to animal and human health.

The Friends of the Land Board of Judges for book selections consists of Louis Bromfield, the author-farmer-conservationist; Mrs. Luis John Francke, prominent in Garden Club circles and well informed on conservation; Paul Sears, head of the new conservation school at Yale and author of "Deserts on the March"; Russell Lord, well-known agricultural writer and editor of *The Land*; and myself.



Jonathan Forman.

Last year we selected that delightful book of Aldo Leopold, "Sand County Almanac" and J. Russell Smith's "Tree Crops." We now have one this spring that everyone should read . . . "Big Hugh," by Wellington Brink.

"Big Hugh" is the story of the life and work of Hugh H. Bennett, the Chief of the United States Soil Conservation Service. The problems of conservation have been appreciated by agricultural leaders for hundreds of years. Washington wrote about it . . . Jefferson laid out a plan for his own farm . . . but "conservation" had to wait until Hugh Bennett's staff could get around to doing the job! So, too, with the whole problem . . . it had

to wait upon Hugh Bennett. Brink's book tells not only the story of a great man, but it tells the story also of the United States Soil Conservation Service, and the work that it has accomplished . . . for up to now, the Soil Conservation Service is Hugh Bennett and Bennett is the Service.

We of Friends of the Land publish books which summarize what we ourselves have learned. First, there was "Soil, Food and Health," now out of print, which summarized what the 16 authorities on some phase of the subject had told us at each of our 8 annual institutes on conservation, nutrition, and health. Next was "Water and Man," which has been well received and will also soon be out of print.

At the moment I am working on the manuscript of a third book in this series, in which some 20 experts look upon the soil as a dynamic community. I hope to have it ready for the publisher soon.

In the meantime, Russell Lord has taken the best from some eight annual volumes of *The Land* and arranged this into an anthology entitled "Forever the Land." This volume, incidentally, tells the story of the beginning and growth of Friends of

the Land. This does not interfere in any way with the purpose to present the best that Friends of the Land have written since 1940. This book is published by Harper Brothers.

The attitude of us of the Friends of the Land is best illustrated by the poster which Ollie Fink has set up outside in the hall, on which our president, Edward J. Condon of Sears Roebuck, has said:

"There is no question but that in this country, the work of the soil conservation districts in their totality is the strongest, the most effective, the most productive single factor in the entire soil conservation movement. Friends of the Land from the beginning have endorsed, supported, and cooperated with this group whenever and wherever the opportunity presented itself."

Everyone who believes in the future of this Republic and who is anxious to defeat those who are intent upon giving us a planned economy and governmental controls through which we shall lose our freedoms and become serfs of those who govern, should get behind this organized, grass-roots movement of the farm people to bring health and prosperity to all of us.

STANLEY COUNTY WINS ITS STRUGGLE FOR WATER

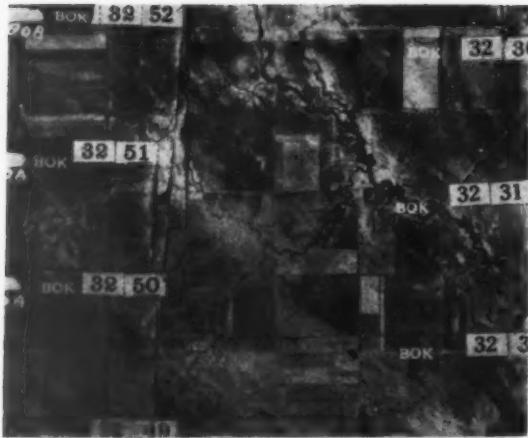
By the staff of the Agricultural Conservation Program, Production and Marketing Administration, U. S. Department of Agriculture

NOT ALL the drama of the range land is confined to the movie and television screen. Nor is all of its drama told in tales of conflict between cowboys and Indians, sheepmen and cattlemen, homesteaders and livestock men. One of the great all-time dramas of the plains is found in the struggle of the farmers and stockmen for water.

Let us consider a real western thriller. No papier-maché sets, no painted back drops are used. The vast and wind-swept prairie is the scenery. The cast is not made up of Broadway and Hollywood actors. The resourceful men and women of Stanley County, S. Dak., working under the sympathetic direction of their elected farmer county and community PMA committeemen, stage this mighty western drama.

THE SETTING: Stanley County is one of the many dry counties in the Great Plains. It holds this record despite the fact that the Cheyenne River makes up its northern boundary and the Missouri River flows down its eastern side. Although there are 125 miles of water along its border, only 16 inches of precipitation lands on top of it, and most of this is in the form of winter snows.

A great part of the little rainfall that Stanley County has received through the centuries has run off into the Missouri and the Cheyenne and other tributaries. The soil is black but only moderately fertile. The land surface in Stanley County was formed by the action of erosion and the land still erodes easily unless properly managed. When the



Before.—Erosion conditions as seen from the air in 1938.

water runs off the unprotected land and fills the creeks and the streams and the rivers and finally gets to the Missouri, it takes with it a lot of the soil of Stanley County.

Properly managed, this soil produces a good stand of nourishing western wheatgrass, buffalograss, and other native grasses for livestock. There is, normally, moisture enough in the soil to produce grass for the livestock, but the limiting factor has been water—water for livestock to drink, and water for people to drink.

ACT I, Scene 1

TIME : 1933

Stanley County has 2,500 people, all but a few hundred of whom live on farms and ranches representing the largest population of the county as attained to this time. There are 350 operating ranch units—representing a peak number to date—scattered over the county's 960,000 acres. Only 50,000 of its acres are plowed up and planted to crops. Their livestock cycle is on the upswing and the county is approaching an all-time high of 34,000 animal units.

A common saying among the old-timers is that it is 10 miles to water—5 miles across and 5 miles down. The need for water remains of utmost concern. There are only 150 livestock watering facilities in the entire county. Because livestock do not move too far away from water, many acres of grassland are not being used. The depression is on, and Stanley County at the top of its development has tightened its belt. The people are determined to weather the depression.

ACT I, Scene 2

TIME : 1934-36

The farmers and stockmen of Stanley County, along with those of a score of other States, look to the clear skies and the unclouded sun day after day. It parches their land. It turns the soil that has been plowed to dust as fine as talcum powder.



After.—Same area in 1949, after farmers cooperating in Agricultural Conservation Program had carried out soil- and water-conserving measures.

The overgrazed land, too, turns to dust. Winds carry the soil into the skies. Then more sun and more wind. Their cattle are dying or becoming worthless from lack of range grass and water. They are shipped out and sold, and the 34,000 animal units have been cut in half—to 17,000 animal units. Windmills creak and groan above deserted farm-houses with their empty windows staring blankly over the dusty prairie.

The exodus of the farmers and stockmen is on. Of the 350 livestock operators, 250 are being forced to liquidate their holdings and look for new homes. The Government is buying up cattle and shipping the animals to States that have enough feed and water to keep them from dying of hunger and thirst. The great part of the land of the county is being taken over by county government to pay taxes. Business is paralyzed. There is only one livestock water facility to 6,000 acres. The 100 livestock operators who are sticking it out have some water some place on their range.

ACT II, Scene 1

TIME : 1937-38

An airplane flies back and forth over the county. It carries cameras and is photographing every acre



Aerial photograph of area in Stanley County, taken midsummer of 1938. One dam is shown in upper left-hand corner. Erosion is evident and fields show farming by compass instead of contour.

of land. It is part of the work of the Agricultural Adjustment Administration, the predecessor of the Production and Marketing Administration. This agency in 1937 is beginning to set up a conservation program for the range area and is taking inventory of the facilities of the county. County and community committeemen are being elected to serve their neighbors in planning the Government conservation program and allocating the assistance made available to the ranchers by the Government for improvement of the range land, and, too, they are bringing out plans for hundreds of dams. Livestock watering facilities lead as the major project in Stanley County, but the committeemen are talking about stock plans of later programs, such as deferred grazing and seeding and reseeding of adapted varieties of grass and the planting of shelter belts. But these are to come. Right now the inventory still shows the 150 water holes and the vast area where the drought years caused the now short grass.

The regions from which the cattle have disappeared are still scraggy, poor, and almost worthless. Farmers and ranchers are taking hope as the number of water facilities increases month by month. The aerial photographer continues to take his pictures.

ACT II, Scene 2

TIME: 1949-50

The airplane again is in flight over Stanley County. The farm land is being photographed. The pictures reveal the progress made under the Agricultural Conservation Program. They show there are now almost 1,300 ponds. Some of them are almost small lakes. Instead of one pond to two

ranches there is now an average of five to each ranch. Instead of one water facility to 6,000 acres there is one for each unit of 800 acres. There is hardly a ranch that does not have some kind of water facility—most have more than one. One hundred and fifty new operating ranch units now dot the county, bringing the total to 250. Although this is less than the figure of the early 1930's, the livestock units on these ranches far outnumber the total number of the 1930 top figure. One hundred and twenty thousand acres of land which the coun-



Same area, taken midsummer of 1949. Note stockwater dams and contour farming. This indicates what has been going on all over the county.

ty government was forced to take over have been bought by ranchers.

Most of all, the fear of a drought year does not hang over the ranchers of Stanley County as it once did. Ernest Hedman, chairman of the county PMA committee, is asked if a dry year such as we had in the 1930's would cause the disasters of that time to be repeated. He replies: "No. Of course, a drought wouldn't be good. But there's hardly a rancher in the county who doesn't have a 2-year supply of water on his place right now, enough water to take at least his foundation animals through two drought years in a row. We're fixed for it now because we have water."

And there are lots of others who are benefiting. Youngsters who once had to travel for miles for water to drink can now fish in the ponds and small lakes stocked with fish. Ducks that once passed up this land in a hurry know a good thing when they see it, and now nest in Stanley County. The once-dry land is getting a reputation as a good hunting area and a fisherman's paradise. The tide of battle of the fight for water is turning to the side of these sturdy ranchers.

“WE WILL GET THE JOB DONE— ON TIME”

By HUGH BENNETT

(Excerpts from address delivered at the 1951 convention of the National Association of Soil Conservation Districts, Oklahoma City, Okla.)

RIIGHT at this time, probably as much as at any other time since the first soil conservation district was established, there is much that we need to be thinking about, talking about—and doing something about—both as district officials and as assisting technicians. Again, and for the third time within the brief space of 33 years, we find ourselves in a state of emergency and national mobilization of our manpower and economic resources for defense of our country and of those democracies elsewhere we would have go with us and not against us. Again we find ourselves called on to defend soil and water conservation work against questions raised by the short-sighted, the misinformed, the meddlers. It seems to me rational people would never raise a question as to the perfectly obvious fact that in order to maintain national strength, we must safeguard and maintain the very source of our individual and national strength—our productive land. Some have argued that now, since we seem to be on the way to a long and destructive war, we can postpone soil conservation.

What some people still don't seem to realize is the fact that men with guns and bullets can't fight without food, and that there can be pitifully little food from poor land. No one knows how long the present emergency may last—1 year or 25 years. But the longer it does last, with the continuing need for maximum production of food, fiber, oil crops, timber, the more indispensable becomes our productive land from which all these necessities are derived. More important also becomes the conservation and efficient use of this land, and the water which makes it produce.

Among other things, in the light of conditions as they are, this would seem to indicate pretty definitely that government and local interests will need to assume an even larger share of responsibility

than ever for carrying on the vital conservation program. Your soil conservation districts—every supervisor, every cooperator, and every potential cooperator—must redouble their efforts in safeguarding our productive land. Every dollar of government money available for soil and water conservation—whether from Federal, State, or other sources—should be budgeted and spent so as to make sure of its utmost contribution to real conservation.

The Soil Conservation Service, for its part, will continue to use every dollar of its appropriations to the maximum extent possible in providing technical help to farmers in soil conservation districts as in the past. In fact, 88 percent of our entire personnel is thus engaged in soil conservation work on the land now. The Service likewise stands ready to give full cooperation and every encouragement to whatever program or agency is contributing to our common conservation objective, financially, educationally, or otherwise. We are not too greatly concerned over “reorganizations,” which seem to lead some people off onto tangents of speculation and unwarranted forebodings.

It is you and your neighbors in the soil conservation districts, farm organizations, agricultural committees, and elsewhere who, I am confident, will continue to give the necessary direction and push to our over-all conservation undertaking. It is an important responsibility which you have in this matter, but one which I urge you not to avoid or slight in any way. Your help is always needed; now it is indispensable.

During the last year, about 10 new soil conservation districts were organized each month, along with substantial additions of new territory made to established districts. I hardly need to remind you what that means in terms of additional demands for technical assistance. Meanwhile, we had fewer technicians available, country-wide, to give service to the districts. What that condition adds up to is obvious: We have had to tighten up all along the line, and increase the efficiency of operations, individual by individual, and district

by district. We don't know what the situation will be next fiscal year precisely, but there is every logical reason to expect the manpower situation to get tighter rather than otherwise. That means again, of course, that all of us—district officials and Service personnel alike—have to take advantage of every good means of further increasing efficiency in operations.

Certainly, it seems to me, the National Association has moved in the right direction by adoption of your "Program for Greater Service." This is an action program, designed to give every district officer an important job to do, as well as enlisting the active support of everyone who may contribute in any way to progress of soil and water conservation through districts.

I am expecting much improvement all over the country through your "Program for Greater Service." Taken seriously, as everybody is expecting you to take it, there can be no doubt of its success. As I see it, success is dependent on you, but our people will help everywhere they can.

One of the best ways, also, we have found for speeding up the conservation job is for every farmer to learn as quickly as possible how to carry out as much of his conservation work himself as he possibly can, and how to keep up his structures and maintain his other conservation developments with a minimum of technical assistance. In that way—particularly now when the time of our limited number of experienced personnel is so fully occupied in furnishing technical assistance to the still-increasing number of soil conservation districts—each technician can be freed for that much more new planning and assistance in new land treatment.

Your reports indicate that the backlog of applications for district farm conservation planning assistance continues to be about 200,000. We are all glad, I know, to have a healthy work load ahead, instead of having to go about drumming up business. But you district supervisors and our technical people alike are anxious to get to every one of those farms with the least possible delay, as well as to the other farms and ranches constantly being added to that backlog of requests. That is why we are emphasizing the facilitating device of neighbor-group action, maximum farmer application and maintenance work, and relieving the technicians just as much as possible from doing such "house-keeping chores," as routing and servicing.

And still more people—within your districts and the public generally—need to know the job there is still to do and what it takes in manpower and other facilities for getting that job done. They need to know, for one thing, that the continuing need for some years yet is for more technical and other manpower, machinery, materials, and so on, in order to pick up the lag and keep pace with farmers' demands. Fortunately, many interests, government and private, are giving increased attention, financial and other support to soil and water conservation, especially support to the district programs.

I hardly need to remind you, for instance, that State appropriations and allocations such as are now being made by all but three States, I believe, for assisting district programs are of substantial benefit in furthering soil conservation. There seems to be rather general agreement now as to the Government's obligation to help farmers with their erosion and land-use problems. How much help soil and water conservation receives from Government, and for how long, depends on the performance of those entrusted with this vital work—on individual landholders, district boards, technical personnel, and so on.

Among other points that must not be overlooked as important, unfinished business, we should all do what we can to:

1. Complete the national land inventory at the earliest date facilities will permit.
2. Complete the organization of the Nation's agricultural lands into soil conservation districts and strengthen district responsibility and work with a scientifically developed soil conservation plan for every farm in the country.
3. Urge active participation of all interested rural and urban groups—business, professional, and patriotic—in achieving Nationwide conservation.
4. Make a real conservationist out of every farmer in the country.

We have a long way to go yet, you see, but with the task in such good hands as yours, we will get the job done, on time.

A documentary film, "Steel Fingers and Green Thumbs," is being released by Harry Ferguson, Inc. The 30-minute, color picture tells in graphic form the changes brought to American farms by modern machinery.

WHAT MY SOIL CONSERVATION DISTRICT HAS DONE FOR ME

By DONALD McKNIGHT

(Address which won the national \$500 award in competition financed by the Dow Chemical Co., delivered at 1951 convention of the National Association of Soil Conservation Districts.)

I AM Donald McKnight from Harford County, Md. I am speaking on the topic, "What My Soil Conservation District Has Done for Me."

"I wonder why we didn't think of that years ago," remarked a neighbor farmer the other day. We were talking about the ease with which we use huge farm machinery, such as combines, automatic balers, and corn pickers on our hills, and how the contour strips enabled us to pull heavy implements with medium-size tractors. Sure enough, why didn't we think of that years ago. Why, I remember when we first tried to plow with a tractor on my farm. We went around and around the large rectangular field. The tractor operator was almost constantly changing gears to suit the hills, and often the depth of the plow would have to be lessened so the tractor would have power and traction to pull it. It was uphill and downhill, overloaded and underloaded, causing needless waste of time and fuel, and wear and tear on the tractor. Today, I farm on the level, around the hill, on the contour. The tractor always has ample power to pull machinery at the proper depth or speed. It saves stopping to change gears, to say nothing of the savings in fuel and tractor maintenance. Why didn't we think of that years ago?

The answer to this question is obvious. We didn't have a soil conservation district in those days to tell us, and to guide us, yes, and to show us, all about these better methods. It is possible, yes, even probable, that we might still be working around the fields, up and down the slopes, fighting a losing battle against hills and gullies and sheet erosion, were it not for our soil conservation districts. They opened our eyes and helped us to rearrange our fields to be farmed on the level. That's what my soil conservation district has done for me.



Donald McKnight.

But this is of small importance compared to the real contribution of my soil conservation district. What a feeling of satisfaction it is to go to bed at night, hear the rain pounding down on the roof, and know that your farm isn't washing away. What a satisfaction it is to know that every furrow you plow, every row you cultivate, becomes a small dam or a terrace to stop or slow the flow of water from the field. The water no longer runs on my farm; it walks downhill. What a satisfaction it is to look over the fields after a hard rain and see the water still lying between the ridges of the contour corn rows, where once gullies, sheet erosion, carried countless tons of precious topsoil and valuable fertilizer and plant foods into the Chesapeake Bay.

That topsoil is forever gone. I can't reclaim it. It's somewhere down the river, perhaps helping to silt streams and ruin them for fishing and for sportsmen. Or perhaps it is helping to clog the channels of the Chesapeake, and is thereby costing us taxpayers millions of dollars a year for dredging.

During dry seasons, the crops on my farm don't seem to suffer like they used to. They have more moisture, because much of the rainfall soaked into the ground instead of running off. On my farm I have been able to all but eliminate the numerous gullies which were once a source of so much trouble and inconvenience. That has been done by alternating a contour strip of cultivated crop, such as corn, with a strip of hay. In this manner the runoff that does occur in the loose soil of the corn is brought to a stop by the next strip of sod before it can develop into gullies. What a difference this has made in the value of my farm and in the ease of farming it, thanks to my soil conservation district.

It was not so many years ago that there was never enough feed to carry the livestock through the winter. Each season corn and hay and sometimes barley had to be purchased. At the present time I have an abundance of hay on hand, a large amount of corn for sale, and I have already sold one-third of my total crop of barley, and I am feeding more cows than before. I would say that the livestock carrying capacity of my farm has about doubled since starting to cooperate with my soil conservation district.

Green pastures are the pride of any farmer. My permanent pastures are becoming greener under the soil conservation program. Only a few years ago, sufficient pasture was always a problem for a 30-cow herd during the dry, hot season of late July and August. Today, 40 head graze throughout the season with an abundance of lush, green pasture. In fact, it is sometimes a problem to keep the grass from getting ahead of the cows. This is the cheapest, most easily harvested crop I raise, and, I might add, is the most profitable. The first pasture improvement practice recommended and supervised by my soil conservation district was that of furrowing the sloping pasture fields. An improvement was soon noticeable. Runoff water was practically stopped. It soaked into the ground, making better pasture instead of bigger floods. During the dry season, the pastures are green instead of brown.

Another important phase of pasture improvement has been that of application of liberal amounts of lime, fertilizer, and manure; regular clipping to control weeds and excess growth; and rotation grazing: complete and inexpensive, yet a highly successful permanent pasture program.

My latest conservation practice has been that of wood-lot management. Selective marking and cutting of mature trees has been a welcome additional source of income. My wood lot is also a source of considerable pride, as tall straight young trees are showing promise of an indefinite supply of lumber for farm use and for sale. Although this work has been under the direction of my district forester, it has been encouraged by the soil conservation district, and had it not been for the splendid success of my soil conservation program, I probably would not have sought outside help in my forestry management.

One of the biggest things that my soil conservation district has done for me, and for my community for that matter, is that it has helped to make us soil conservation minded. This might be called the educational phase of their work. I no longer look at my topsoil as just plain dirt, but as life-giving, life-sustaining substance, which must be conserved if I am to prosper as a farmer, and if I am to leave anything worth farming to future generations. I have seen that my soil is not an inexhaustible storehouse, which can be farmed indefinitely without improvement. I have come to the realization that the soil is like a bank account. You can't keep checking out if you don't put something back, and bankrupt soil means bankrupt farming. So I farm with this in mind, using such approved practices as green-manure crops, winter cover crops, and recommended crop rotations. This, supplemented with plenty of lime and fertilizer, plus soil-holding conservation practices, means that my soil, instead of becoming exhausted, is steadily improving. My soil conservation district has educated me as to the real value of my topsoil. I find myself constantly planning my farm program with the thought of soil improvement. Every effort is being made to increase the humus or organic content of the soil through the careful use of crop residues, green-manure crops, and barnyard manure. The soil on my farm is thus becoming darker and richer, thanks again to my soil conservation district.

Many abandoned farms show the stark tragedy

of misuse of the land. Many farm families try to eke out an existence on poor, eroded, run-down farms. This results only in drudgery and poverty. Good conservation practices could have prevented it. I am not like the old farmer who boasted to his district supervisors that they couldn't tell him anything about farming, because he had done wore out three farms. I am continuously looking to my soil conservation district for additional advice, and for on-the-farm technical assistance with my soil problems so that my farm might never wear out.

But where my soil conservation district has been most appreciated is in the farm pocketbook. Since beginning to cooperate with my district, this farm has shown a steady increase, both in crop yields and in income. The past year of 1950 has seen the biggest yields in history come from my fields. Contour strips of oats and barley exceeded 60 bushels per acre, while field corn yielded nearly 100 bushels, an all-time high. Sugar corn yielded 5 tons per acre, another record. At a time when both civilian and military needs are high, this is important. A large mortgage has been paid off in recent years; new machinery has been purchased; all buildings have been painted, repaired, and improved; large amounts of lime and fertilizer have been applied; and modern conveniences have been installed in the farm home. My farm became completely debt-free a short time ago for the first time. This has been due, in part at least, to the increased production of the farm under the soil conservation program.

And I must not overlook the fact that my soil conservation district has helped to reduce floods and highway damage in this area through slowing and lessening the runoff water from cooperating farms. This means lower taxes are needed to pay for highway maintenance and to repair flood damage.

My soil conservation district has helped to make my community more prosperous, for conservation and prosperity go hand in hand. Increased yields for the farmer mean more food at a lower cost to the consumer. That means a higher standard of living and better health for all concerned. When Agriculture prospers, America prospers. It all adds up to more money in the bank, better buildings on the farm, and more modern machinery in the fields. It means fertilizer for the crops, orchids for the farm wife, and a brighter future for the kids. It means more of the nice things of life,

more of the little luxuries that take the drudgery out of farming and make farm life worth while. In short, it means better farming and better living.

Beyond a doubt, the soil conservation program has been the best investment ever made on my farm. That's what my soil conservation district has done for me.

DEMONSTRATING VALUE OF GROUP PLANNING

By KENNETH WELTON

AN EDUCATIONAL device used to sell the idea of neighbor-group planning, so successful in Indiana, may be useful to others who have the problem of converting the skeptical. I first employed this method in 1946 at the Turkey Run State conference of district supervisors. Approximately 150 district supervisors, 30 extension workers, and 30 district conservationists and farm planners were there. Following this demonstration the principle of group planning and action was accepted almost generally in Indiana, although not at once adopted. The use of the technique helped materially to put the idea across. At this one meeting all leaders were "sold" in less than an hour—no more time than it would have taken to teach the idea to each one individually.

The method has been found equally as effective in describing neighbor-group techniques as in describing unnatural-group planning. Since working with neighbor groups has become a generally accepted practice, we now start by demonstrating how the neighbor group and its leader are located.

The speaker has an assistant to keep tally. If a blackboard is used, so much the better. The speaker has a carton of cigarettes, or 10 objects of similar utility. The cigarette packages create some initial interest and, although not necessary in them-

Note.—The author is State conservationist, Soil Conservation Service, Lafayette, Ind.

selves as part of the demonstration, they are easy to obtain and are easily handled.

The speaker explains the problem of time wasted in individual planning. He indicates how much time could be saved by bringing all parties together for the first few meetings, and then doing the final planning with each farmer separately.

He demonstrates by setting up the 10 packages of cigarettes or other pawns before him on the table, distributing them in a scattered pattern. He then tells the audience that he is a farm planner and that the 10 objects represent farmers who have requested assistance from the district.

He explains that, on the average, each contact with a farmer on his farm accounts for half a day of a farm planner's time.

He asks his assistant to count the number of times his hand touches a pawn, because every such contact represents a visit to a farmer on his farm—or half a day of the planner's time.

The speaker then puts his hand on a pawn and describes how this farmer visited the district office and left his name with a request for help with drainage. The farm planner looks over his drainage situation but tells the farmer that drainage is only part of the problem. He tells him about a soil conservation survey and a farm conservation plan, but the farmer is interested only in drainage.

Another pawn is touched. Here is a farmer asking a district supervisor to have the planner call; he wants to put a terrace on a field so he can get ACP payments. The planner explains that a terrace system should be part of a conservation plan, that under some circumstances terraces alone might do more harm than good. He points out other soil conservation needs on the farm that are equally as important as terracing, again directing attention to the value of complete analysis and planning before action is undertaken.

And so, back and forth, the speaker touches one pawn and then another, always moving them towards a line at the extremity of his reach in front of him on the table. As he moves the pawns, he explains his contacts in simple terms and problems that the audience understands. Were he to continue, he would move each pawn five times and end with a certain number of pawns on the line ahead of him. These would represent the farmers who completed plans.

But it is not necessary to describe 50 farm visits or contacts, once the audience gets the idea of the

variety of situations met by the planner in his various calls. So he explains that he will save time by cutting out the description of his remaining calls, and moves the pawns to the planned position. He points out that it has taken an average of 5 visits per farmer to get them there. He has left 4 pawns short of the line, although he visited the farms they represent 5 times. These are farmers who would not complete a conservation farm plan. Then he asks his assistant how many days' work it took. The reply is that 50 farm visits were counted, an average of 5 per farmer. At $\frac{1}{2}$ day per visit, 25 days of the planner's time were consumed and since 6 plans were completed, it took 4 days per plan.

The speaker then instructs the assistant to count again. He returns the pawns to their previous scattered positions. This time he goes through the steps of locating a neighborhood and identifying its natural leader. He uses the pawns in describing his contacts. Then he describes how the leader calls the neighbors—7—to a meeting. In one motion, 7 pawns are swept together to represent the group meeting. He ignores the other 3 pawns.

He then covers briefly and systematically all the points that he had talked about previously while touching the 10 separate pawns. But this time he places his hand on the grouped pawns 4 times only. He then takes each pawn separately and places it on the finish line; this is the on-the-farm contact at which the plan is completed.

The speaker asks assistant for score. Assistant reports that there were 4 contacts in locating group and leader, there were the equivalent of 4 calls in checking over the conservation problems of the neighborhood, 4 contacts with the whole group at meetings (1 pre-planning and 3 planning) and 1 contact with each of the 7 in the final on-the-farm call, or a total of 19 calls. Nineteen calls at $\frac{1}{2}$ day apiece equaled $9\frac{1}{2}$ days of planner's time, which is less than half the time previously spent in getting 6 plans. This time he not only got 6, but 1 more, since there happened to be 7 in the neighborhood.

The speaker then points out how the planner's time and travel were saved, how he was able to do a better job by the group technique, how he used the neighborliness of the group and the leadership ability of a member to advantage, that the plans were of better quality than their predecessors, and that the farmers were more apt to apply them.

Finally he describes how the group may work together in application, with help of the conservation aid.

This technique is a combination of visual aid and showmanship. The combination of talk, moving pawns, and use of an assistant holds attention of the audience and puts over the idea. In this method, of course, we are not trying to demonstrate the technical problems met in farm planning but the general approach. For that reason the accounts of visits to farms are brief and suggestive rather than long and detailed.

Most of the discussions are pertinent and practical. Enough detail is given to enable the average school administrator or teacher to use the ideas presented; yet, the discussions are brief enough to prevent boredom.

A lengthy appendix gives: (1) selected references for teachers and for students at various grade levels, (2) audio visual materials from all sources, and (3) a list of both public and private agencies that may give a teacher aid in conservation education. These lists are probably more comprehensive and up-to-date than any other lists of this kind now in print. They, alone, should make the book the most valuable reference available to school administrators and teachers who are interested in conservation education.

—TOM DALE.

REVIEWS

CONSERVATION EDUCATION IN AMERICAN SCHOOLS. Twenty-ninth Yearbook, American Association of School Administrators. 527 pp. Illustrated. 1951. 1201 Sixteenth St., N. W., Washington, D. C.: American Association of School Administrators. \$4.

This book was prepared mainly as a school administrator's guide for expanding and improving conservation education in the public schools of the United States. Although it places the main emphasis on what to do and how to do it, it also contains much excellent background material and points up the great need for more effective education on the conservation of natural resources. This volume should be valuable not only to school administrators, but should also be widely used by classroom teachers, supervisors, and all other people who are interested in conservation education in the schools of America.

The opening chapter is entitled "Conservation, the Price of Survival." It is a well-written and thought-provoking discussion. It should certainly awaken any of those teachers or school administrators who think that conservation is not a problem in which the schools should be concerned. Succeeding chapters bear the titles: (2) Initial Steps Toward Wise Resource Use, (3) Guides for School Programs in Conservation Education, (4) Instructional Materials and Facilities, (5) Some Good Practices in Rural Schools, (6) Some Good Practices in City Schools, (7) Promising State Programs of Conservation Education, (8) Regional Programs of Conservation Education, (9) Preservice Education of Teachers, and (10) Administrative Leadership. This table of contents gives a very fair picture of the actual contents of the book.

CONSERVING SOIL RESOURCES. A Guide to Better Living, compiled and edited by Paul W. Chapman, Frank W. Fitch, Jr., and Carry Lafayette Veatch. 355 pp. Illustrated. 1950. Atlanta, Ga.: Turner E. Smith & Co. \$3.28.

This book should prove a top-notch soil conservation guide for elementary teachers. The authors composed the Book Committee appointed by the Georgia State Soil Conservation Committee with instructions to compile a teaching aid, and they consulted a large coterie of State agencies in completing their task. The result of their efforts is an attractive book organized primarily on a problem basis.

The introductory unit, "Land and People," notes our dependence on the soil and is distinctive in listing the human resources upon which conservation depends. The critical reader may question, however, the finality with which the fall of ancient civilizations is attributed to soil erosion, both here and in the closing unit of the book. The second unit, "What is Soil," is an effective presentation of facts, both by text and illustration. Unit III on "Soil and Water Problems" presents in adequate fashion the water cycle, losses from and effects of erosion. There are brief notes on conservation as a common problem and the need to "know your watershed." Subsequent units discuss in straightforward style the results of erosion research, soil conservation practices, and the manner in which the country is organized to undertake soil conservation work.

Unit VI covers the saving and enriching of farm lands by proper land use, maintaining cover, and proper cropland management. It closes with the note that conservation has created several new occupations although it lists only the farm-power contractor. Because there is a good unit on "Land and Wildlife," one wonders why woodland management, so important in Georgia and adjacent States, did not receive comparable treatment. Neither is there a unit on pasture land, although the subject is fairly well covered under other head-

ings. There is a unit on non-farm lands, such as roads, school, church, and home grounds. Another unit makes the point that conservation farming pays, entirely, however, in terms of economic values. The final unit is on the responsibilities of land stewardship.

There is a glossary, although it is interesting to note that the words "soil" and "land," used throughout the book, are not listed. I should think most teachers would want to differentiate them. There is a list of references, by units, which follows the glossary, and there is an index.

All in all, the book should prove very useful to teachers who wish to get a working background of soil conservation. The "Summaries" and lists of "Things to Do" which conclude each unit should be especially helpful. The book is put up in workmanlike style, presents its material effectively, and is well illustrated by drawings, tables, halftones, and, at the head of most units, full-page color photographs. Unfortunately, its usefulness will be largely restricted to the Southeast, or at least the humid sections of the country, for there are no examples from the Plains States, arid areas, or Far West.

—EDWARD H. GRAHAM.

NOTES FROM THE DISTRICTS

LUCKY 13.—He was lucky to be the thirteenth cooperator in the Lamoille (Vt.) Soil Conservation District, back in 1945, says Charley Grandey, who farms near Wolcott. He swapped 100 acres of "rough, bushy, run-out pasture land for seven cows" shortly after buying his farm, and then applied to the new district for technical help. That first winter he had to buy hay. He increased the size of his herd, and still found it necessary to buy a little hay each year until 1950-51, when he produced all he needed. All this and many other benefits have come to Grandey from farming under a complete conservation plan. He has established practices under this plan every year since 1946.

EXCELLENT SPECIAL ISSUE.—In March the *Delta Democrat-Times*, Greenville, Miss., published a 32-page, 4-section issue entirely devoted to agriculture—a super-size, standard 8-column newspaper abundantly illustrated with halftone and line cuts which gave a complete picture of land conditions and land use in Washington, Bolivar, and Sunflower Counties.

This notable issue is in the nature of a comprehensive yearbook of great practical reference value to the people of the three counties. It contains special articles by representatives of all local, State, and Federal agencies engaged in agricultural activities. Local business firms helped to make the

issue possible by advertising, which in itself was highly informative and stimulating. A wide range of up-to-date information by specialists and leaders in farm and civic affairs was included. This undoubtedly was one of the most ambitious and effective editorial undertakings of the sort ever attempted in the United States. The three soil conservation districts—Washington, Bolivar, and Sunflower—closely cooperated in the project.



TREE STUDY.—A 361-acre woodland near El Dorado, Ark., is serving as a conservation model for farmers, students, civic clubs, and the public in general. Owner of the tract, the Lion Oil Co., entered into an agreement last December with the Union County Soil Conservation District for development of a conservation plan covering the land.

The tract was once used for oil storage tanks which were made unnecessary by the development of pipe lines. Under the district agreement, each of five compartments will be cut selectively once every 5 years. Pine seedlings were planted in all areas not already forested. Precautions were taken against fire and grazing.

Main object is the perpetual production of the greatest possible amount of high-quality wood products. The plan included the three essentials of a conservation-managed woodland: protection, reforestation, and selective cutting.

The El Dorado Chamber of Commerce agreed to develop a continuing schedule of tours to take full advantage of the opportunities offered by the "living textbook." Foresters of the Southern Pulpwood Conservation Association and the Arkansas Resources and Development Commission and Soil Conservation Service technicians act as guides.

Three 1/2-acre permanent plots have been set up to show the growth of timber under different management practices. One plot is to be cut selectively. On another plot all trees larger than 8 inches in diameter will be cut—a typically wasteful practice. The third plot serves as a check, with no trees to be cut. Growth records are being maintained for all the plots.

—W. W. FERGUSON.

AUCTION INTERLUDE.—When the Walterboro and Bamberg Railroad went out of business 16 years ago, J. T. Herndon, assistant station agent at Ehrhardt, S. C., had to find another occupation. So he began holding cattle sales in his back yard.

Livestock development began to expand in his section about that time, and Herndon expanded with it. He now operates two livestock sales barns, one at Ehrhardt and a smaller one at Fairfax, S. C. Some 20,000 head of cattle and 80,000 hogs are sold at auction every year through the Ehrhardt barns.

Today Herndon is one of the biggest boosters of sound soil and water conservation in the South Carolina low country. That is because he has seen the effects of conservation farming on the quality of cattle sold at his livestock barns.

In 1943 he began to notice that some of the best animals at his sales came from farms of cooperators in the local Edisto Soil Conservation District and it gave him an idea. He got with H. K. Brabham, then district supervisor from Bamberg County, to see what they could do to encourage more farmers to develop the kind of program that was producing the top-grade cattle and hogs.

Herndon had a number of wooden signs painted urging farmers to develop improved pastures, plant sericea and kudzu, and terrace their land as recommended by the district. The signs were hung in the sales ring and on three trucks he operates. Later he obtained through the SCS regional office at Spartanburg pictures contrasting poor cattle on poor pastures with sleek, fat cattle on good pastures. Enlarged copies of the two pictures now hang in the sales ring. They are captioned: "Some of the Best Animals That Go Through These Sales Are from Pastures Developed According to Recommendations of the Soil Conservation Service."

With 200 or more farmers attending the weekly sales at Ehrhardt, Herndon and Moulton A. Phifer, work unit conservationist in Bamberg County, decided that there was a good opportunity during the auction sales to get across soil conservation information in more detail.

So about midway of the sales held every Monday afternoon, Herndon and Work Unit Conservationist Phifer discuss current soil conservation topics. The 15-minute discussion usually takes the form of an interview, with Herndon asking questions and Phifer giving answers.

Although emphasis is placed on developing and maintaining good pastures and the kind of grasses and legumes that can be grown successfully in the district, Phifer also stresses the importance of using and treating all the land in accordance with its capabilities, the class of land best suited to such perennials as kudzu and sericea, the value of the various plants for controlling wind and water erosion, and the importance of pastures and perennial forage crops in a complete farm soil and

water conservation program. He cites examples of farmers cooperating with the district who are carrying out successful livestock programs.

The 200 or more farmers who generally attend the weekly auction sales come from Bamberg, Alpendale, Hampton, Barnwell, Jasper, Colleton, Orangeburg, and other counties in that area, J. A. Jordan, district conservationist, reports, and the result of the information presented during the sales is having its effect throughout the entire area.

"Application of soil and water conservation practices has been stepped up in that particular section and we have been able to work with some farmers for the first time since these contacts have been made at the livestock sales," Jordan says. "In the vicinity of Ehrhardt, more and more pastures are being developed and the good results obtained are encouraging other farmers to carry out similar programs."

Auctioneer Ray Rentz, who owns a farm in that section, is himself carrying out a good soil and water conservation program, according to Jordan. He is developing 125 acres of improved pasture, has 150 acres planted to blue lupine, is planting trees, is developing a wildlife area, and is planting close-growing crops in a hog-production program.



AG STUDENTS GET FARM.—At Newport, Maine, the school committee has turned over 10 acres—7 cropland and 3 woodland—to the Newport school's vo-ag department for use of its students in studying and applying conservation farming practices. Roland Mayberry, vo-ag instructor, will have assistance of SCS technicians working with the Penobscot County Soil Conservation District in classroom and field work. For cropland, the complete conservation plan includes contour strips, rotations, clearing, drainage, and multiflora-rose fences, and a fertilizer, lime, and improvement-payments program in which PMA will cooperate. For the second-growth woodland there is a protection, improvement, and management schedule. Establishment started this spring. Over a period of years, once the system is established, Mr. Mayberry says, the operations will pay the way and bring a good profit. The biggest return, he emphasizes, will come from values that future farmers get in learning how to protect their land and use every acre to its maximum capabilities without destroying its value. Present-day farmers in the community also will benefit, Snyder Von Day, SCS technician, points out, because the operations will be a demonstration of things that they can do to protect and improve their farms.

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